

**REMARKS**

Claim 1 has been amended to incorporate the recitations of claim 6, and claim 6 has been canceled accordingly.

Entry of the above amendment is respectfully requested.

**Information Disclosure Statements**

Applicant notes that an Information Disclosure Statement with a communication from a foreign patent office, a reference, a PTO/SB/08 form, and a Statement under 37 C.F.R. 1.97(e) were filed on May 7, 2007 in the present application. Accordingly, Applicant respectfully requests that the Examiner consider the disclosed information and return an initialed PTO/SB/08 form with the next communication from the PTO.

Also, Applicant notes that an Information Disclosure Statement with a communication from a foreign patent office, an English translation thereof, and a Statement under 37 C.F.R. 1.97(e) are being submitted herewith. Accordingly, Applicant respectfully requests that the Examiner consider this disclosed information as well.

**Anticipation Rejection of Claims 1, 3-5 and 7-9**

On page 2 of the Office Action, in paragraph 4, claims 1, 3-5 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Ono et al (EP 0 507 160 A1).

In response, Applicant notes that claim 1 has been amended to incorporate the recitations of claim 6, which was not included in this rejection, and thus Applicant respectfully submits that this rejection has been overcome.

Also, Applicant submits that the present invention was achieved by making use of a property of acrylate of being soluble even in a small amount of water. However, in consideration that use of acrylate (=salt) contributes to an increase in the pH value of reaction system, the present invention uses a magnesium hydroxide aluminum hydroxide as a cross-linking agent to thereby succeed in gelation of the composition. Applicant submits that the Ono reference does not teach using polyacrylate in combination with a magnesium hydroxide aluminum hydroxide.

In view of the above, Applicant submits that the invention as recited in the amended claims is not anticipated by (or obvious over) Ono. Accordingly, withdrawal of this rejection is respectfully requested.

**Obviousness Rejection of Claims 1, 3-5, 7-8, 10-11, 16 and 18**

On page 4 of the Office Action, in paragraph 7, claims 1, 3-5, 7-8, 10-11, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395 A1) in view of Ono et al (EP 0 507 160 A1).

In response, Applicant notes that claim 1 has been amended to incorporate the recitations of claim 6, which was not included in this rejection, and thus Applicant respectfully submits that this rejection has been overcome.

Also, Applicant submits that in the present invention, which uses polyacrylate or a copolymer of repeating units represented by formulae (1) and (2) ((I)/(2)=100/0 to 90/10), almost all of the polymers present in the gel are subjected to ionic crosslinking reaction. Therefore, the obtained product has good shape retention. On the other hand, in a case where a mixture of sodium polyacrylate and polyacrylic acid is used, no ionic dissociation of polyacrylic acid occurs

and no ion bond occurs. In this case, polyacrylic acid remaining not crosslinked in the mixture affects shape retention of the obtained gel.

In view of the above, Applicant submits that the invention as recited in the amended claims is not obvious over Donati in view of Ono. Accordingly, withdrawal of this rejection is respectfully requested.

### **Obviousness Rejection of Claim 6**

On page 5 of the Office Action, in paragraph 8, claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395 A1) in view of Ono et al (EP 0 507 160 A1) as applied to claim 1 above, and further in view of Yamazaki et al (JP 0 614 5049 A).

In response, Applicant notes initially that claim 6 has been canceled, so this rejection is moot.

Further, with respect to amended claim 1, which corresponds to claim 6 in independent form, Applicant submits that as discussed above, the combined use of polyacrylate or a copolymer of repeating units represented by formulae (1) and (2) ((1)/(2)=100/0 to 90/10) and a magnesium hydroxide aluminum hydroxide realizes an unexpected effect, and none of the references cited here (EP 1046395, EP 0507160 and JP 06-145049 ) teaches or suggests such an effect. Specifically, JP '049 describes in [0007] paragraph that a cross-linking type cataplasm base consists of polyacrylic acid and/or polyacrylate, but the reference does not include any embodiments of a cataplasm base using polyacrylate alone or using a copolymer of repeating units of formulae (1) and (2) ((1)/(2)=100/0 to 90/10). Applicant submits that although JP '049 describes about the use of magnesium hydroxide aluminum hydroxide as a crosslinking agent, it

neither teaches nor suggests using the crosslinking agent in combination with an aluminum compound as described in amended claim 1.

In view of the above, Applicant submits that the invention as recited in the amended claims is not obvious over Donati in view of Ono and further in view of Yamazaki. Accordingly, withdrawal of this rejection is respectfully requested.

### **Obviousness Rejection of Claims 12, 15, 17, and 19**

On page 6 of the Office Action, in paragraph 9, claims 12, 15, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395) in view of Ono et al (EP 0 507 160 A1) as applied to claims above, and further in view of Bernstein (EP 95512 A) or LaHann (US 4,313,958).

In response, Applicant submits that Bernstein and LaHann do not make up for the deficiencies argued with respect to Donati in view of Ono above, so the combination of Donati with Ono and Bernstein or LaHann does not teach, suggest or otherwise render obvious the claimed invention.

For at least this reason, Applicant submits that the invention as recited in the amended claims is not obvious over Donati in view of Ono and further in view of Bernstein or LaHann. Accordingly, withdrawal of this rejection is respectfully requested.

### **Obviousness Rejection of Claims 2 and 14**

On page 6 of the Office Action, in paragraph 10, claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395 A1) in view of Ono et al (EP 0 507 160 A1) as applied to claim 1 above, and further in view of Sato et al (US 4,386,120).

In response, Applicant submits initially that Sato does not make up for the deficiencies argued with respect to Donati in view of Ono above, so the combination of Donati with Ono and Sato does not teach, suggest or otherwise render obvious the claimed invention.

Further, Applicant submits that that one of ordinary skill in the art would not have been motivated to make the combination of references proposed by the Examiner.

In particular, the viscosity of 50-700 c.p.s. is disclosed in Sato et al in connection with the spraying of an aqueous solution of the polyacrylic acid salt onto a powder of polyacrylic acid salt. Since the sodium polyacrylate in Donati is not sprayed, one considering Donati would not have been motivated to use a viscosity specifically based on spraying.

In this regard, Applicant notes that the Examiner indicates in paragraph 18 on page 11 of the Office Action that neither the claim language nor the specification excludes the usage of the composition of the instant claims for spraying.

However, Applicant wishes to point out that the above argument is directed to the issue of whether one would have combined the references, which is entirely unrelated to the issue of whether the present application excludes the usage of the claimed composition for spraying.

Further, while the Examiner indicates in paragraph 18 that it is not necessary for the references to be physically combinable, Applicant submits that nevertheless one needs to have thought to make the combination in the first place.

Thus, Applicant submits that the viscosity 50-700 c.p.s. of polyacrylic acid salt solution is described in Sato et al only as a range appropriate for the purpose of spraying the polyacrylic acid solution onto polyacrylic acid salt powder to form water-soluble polyacrylic acid salt granules, and that its technical field is not relevant to the polyacrylic acid salt described in EP 1046395. Therefore, one skilled in the art would not have thought to combine the references.

In view of the above, Applicant submits that the invention as recited in the amended claims is not obvious over Donati in view of Ono and further in view of Sato. Accordingly, withdrawal of this rejection is respectfully requested.

### **Obviousness Rejection of Claim 13**

On page 7 of the Office Action, in paragraph 11, claim 13 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395 A1).

Applicant submits that the invention as recited in claim 13 is not obvious over Donati, and requests that the Examiner reconsider and withdraw this rejection in view of the following remarks.

With respect to the Examiner's indication that the argued process step (i.e., the step of adding polyhydric alcohol to (meth)acrylic acid-base polymer solution with a water content of 50% or more results in the polymer not getting aggregated) is not in either claim language or the specification (see paragraph 16 on page 10 of the Office Action), Applicant wishes to point out that claim 13 specifically recites that "the process comprises mixing (A) the (meth)acrylic acid-base polymer and a solution of (C) the polyhydric alcohol in (B) water to give a water concentration of 50% or more in the total mass thereof", and Applicant further wishes to point out that the specification discloses at page 32, lines 14-23 that as a result of the process, "the (meth)acrylic acid-base polymer can be readily dissolved", which indicates that the polymer does not get aggregated.

As to the Examiner's indication that the specification discloses aggregation of polymer in reference to the ratio of acrylic acid and acrylate in acrylic acid-acrylate copolymer, it appears that the Examiner is referring to the paragraph bridging pages 8-9 in the specification. However,

Applicant wishes to point out that the specification discloses at page 4, lines 10-12 that when a polymer aggregates and precipitates, viscosity and in turn adherence are not expressed. Since adherence is an important feature for a dermal patch, Applicants submits that aggregation is not desired. Further, with respect to the Examiner's apparent reference to the disclosure in the paragraph bridging pages 8-9, Applicant submits that the sentence bridging pages 8-9 indicates that the invention copolymer exhibits good solubility.

Thus, Applicant submits that the disclosure in the specification is consistent with the arguments traversing the rejection, and that claim 13 is not obvious for the reasons of record. Accordingly, withdrawal of this rejection is respectfully requested.

### **Obviousness Rejection of Claim 20**

On page 7 of the Office Action, in paragraph 12, claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395 A1) in view of Ono et al (EP 0 507 160 A1).

In response, Applicant refers the Examiner to the arguments presented above against the rejection of claim 13 over Donati, since Ono does not make up for the deficiencies of Donati.

Thus, Applicant submits that the present invention is not obvious over Donati in view of Ono, and withdrawal of this rejection is respectfully requested.

### **Obviousness Rejection of Claims 21 and 22**

On page 9 of the Office Action, in paragraph 13, claims 21 and 22 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395) in view of Sato et al (US 4,386,120).

In response, Applicant submits initially that arguments presented against the rejection of claims 2 and 14 above also overcome this rejection.

Thus, Applicant submits that the viscosity 50-700 c.p.s. of polyacrylic acid salt solution is described in Sato et al only as a range appropriate for the purpose of spraying the polyacrylic acid solution onto polyacrylic acid salt powder to form water-soluble polyacrylic acid salt granules, and that its technical field is not relevant to the polyacrylic acid salt described in Donati. Therefore, one skilled in the art would not have thought to combine the references.

Further, Applicant submits that since this argument is directed to the issue of whether one would have combined the references, it is not related to the issue of whether the present application excludes the usage of the claimed composition for spraying. Thus, Applicant submits that the Examiner's comments on the issue of whether the present application excludes the usage of the claimed composition for spraying are not relevant.

As to the Examiner's indication that it is not necessary for the references to be physically combinable, Applicant submits that one nevertheless needs to have thought to make the combination in the first place.

In view of the above, Applicant submits that the present invention is not obvious over Donati in view of Sato, and withdrawal of this rejection is respectfully requested.

### **Obviousness Rejection of Claim 23**

On page 9, in paragraph 14, claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Donati et al (EP 1 046 395 A1) in view of Sato et al (US 4,386,120) as applied to claim 21 above, and further in view of Bernstein (EP 95512 A) or LaHann (US 4,313,958).

In response, Applicant submits that Bernstein and LaHann do not make up for the deficiencies argued with respect to Donati in view of Sato above, so the combination of Donati with Sato and Bernstein or LaHann does not teach, suggest or otherwise render obvious the claimed invention.

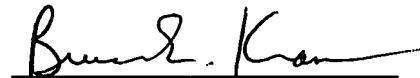
Thus, Applicant submits that the present invention is not obvious over Donati in view of Sato and further in view of Bernstein or LaHann. Accordingly, withdrawal of this rejection is respectfully requested.

### **Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

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**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q72768

Tetsuya ISHII

Appln. No.: 10/532,873

Group Art Unit: 1713

Confirmation No.: 2291

Examiner: Karuna P. REDDY

Filed: April 28, 2005

For: ADHESIVE COMPOSITION FOR DERMAL PATCH AND PRODUCTION PROCESS  
THEREOF

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

**MAIL STOP AMENDMENT**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the document which is listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of the listed documents is submitted herewith, namely, a copy of a Communication from a Foreign Patent Office (Office Action for corresponding Chinese Patent Application 200380102447.X and English language translation thereof). Applicant notes that document D1 (EP 1046395 A1) cited in the Communication was cited previously in the Information Disclosure Statement filed April 28, 2005, and therefore is not being submitted again.

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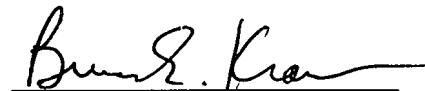
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The present Information Disclosure Statement is being filed after either a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution in the application (whichever is earlier), but before payment of the Issue Fee, and therefore Applicant is submitting herewith a check for the fee of \$180.00 under 37 C.F.R. § 1.17(p), and a Statement Under 37 C.F.R. § 1.97(e).

The submission of the listed document is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

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